

## Chapter 7: Special Populations

### Population II: Public School Children

**Background** – The following points are key findings from the literature

#### 1. WHO

Problems in evaluations identified mostly refer to:

- Quality of outcome measures
- Short-term timescales to assess change
- Inadequate evaluation methodologies
- Inappropriate evaluation of program implementation & processes

Value of pluralistic approaches:

- Limitations of RCT design for evaluation of public health interventions
- The need to match evaluation methods with the nature of intervention
- Development of outcome measures appropriate for the nature of the intervention
- Importance of developing workforce capacity in evaluation techniques
- The need for development of partnerships between health practitioners and academics in conducting evaluations

Findings from 2003 WHO Workshop:

- The relevance of RCTs in evaluation of community oral disease preventive programs are much less clearly defined.
- There is a need for more research into appropriate immediate, interim and ultimate outcome measures, as well as process evaluation (something less practiced than outcome evaluation)

Supports WHO recommendation that clinical measures and methods of evaluation may not be appropriate for oral health promotion interventions.

## Logic Model

### Outcomes

a. Increases for children receiving & retaining sealants.

b. Decreases for children with untreated caries & teeth extraction/loss due to caries.

c. Decreases for ER and primary care visits due to oral health disease.

d. Decreases in school absenteeism due to oral health disease.

### Impacts

a. Increases for kids with “dental homes” & compliance w/ preventive visits

b. Increases for children with completed treatment plans (measure at programmatic level)

c. Parental, faculty, and provider satisfaction from participation.

d. Improvements in self esteem of participating children

### Processes

Surveillance

Policy

Education

#### **Planning**

- Every school district has a dental component, with screening services
- DHEC to target school-based services based on data from inventory and oral health cube.
- Conduct annual meeting of key stakeholders to identify where school-based programs should expand or better coordinate.

## **Objectives**

### **SEALANTS**

#### **7(II).1.1 Increase by 20% the number of children who receive sealants, by June 2008.**

**South Carolina Baseline** 20% (Oral Health Needs Assessment, 2002)

**Healthy People Reference** 21-8: Increase the proportion of children who have received dental sealants on their molar teeth.

Baseline (1988-94): 23% for 8 year olds and 15% for 14 year olds

2010 Target: 50% for both populations

**MCHB Performance Measure #09:** Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.1 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

#### **7(II).1.2. Increase by 50% the number of children participating in Free and Reduced Lunch who receive at least one molar sealant by June 2008.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-8: Increase the proportion of children who have received dental sealants on their molar teeth.

Baseline (1988-94): 23% for 8 year olds and 15% for 14 year olds

2010 Target: 50% for both populations

**MCHB Performance Measure #09:** Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.1 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

#### **7(II).1.3. Increase by 1% the number of sealants that are retained for at least 1 year by 2009.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-8: Increase the proportion of children who have received dental sealants on their molar teeth.

Baseline (1988-94): 23% for 8 year olds and 15% for 14 year olds

2010 Target: 50% for both populations

**MCHB Performance Measure #09:** Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.1 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

## **SERVICE UTILIZATION**

**7(II).2.1 Increase by 50% the number of children on Medicaid who have a “dental home” by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-10: Increase the proportion of children and adults who use the oral health care system each year.

Baseline (1996): 44% of persons 2 years and older

2010 Target: 56%

21-12: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.

Baseline (1996): 20% of children less than 19 years old, below 200% poverty

2010 Target: 57%

**Original State Oral Health Plan Reference** – Priority 3 and 5, Strategies 3.4, 5.1, 5.3, and 5.4 (See Appendices E and G)

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**7(II).2.2. Increase to 100% the number of children who complete urgent treatment plans (of those served by full service programs only) by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-10: Increase the proportion of children and adults who use the oral health care system each year.

Baseline (1996): 44% of persons 2 years and older

2010 Target: 56%

21-12: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.

Baseline (1996): 20% of children less than 19 years old, below 200% poverty

2010 Target: 57%

**Original State Oral Health Plan Reference** – Priority 5, Strategies 5.1, 5.2, 5.3, 5.4, and 5.5 (See Appendix G)

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube,

which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**7(II).2.3. Increase by 20% the number of children on Medicaid who have a minimum of one preventive visit per year by June 2008.**

**South Carolina Baseline** To be determined by age specific groupings

**Healthy People Reference** 21-10: Increase the proportion of children and adults who use the oral health care system each year.

Baseline (1996): 44% of persons 2 years and older

2010 Target: 56%

21-12: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.

Baseline (1996): 20% of children less than 19 years old, below 200% poverty

2010 Target: 57%

**Original State Oral Health Plan Reference** – Priority 3 and 5, Strategies 3.4, 5.1, 5.3, and 5.4 (See Appendices E and G)

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**7(II).2.4. Increase by 10% the number of low-income children and adolescents who received any preventive dental service, by June 2008.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-12: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.

Baseline (1996): 20% of children less than 19 years old, below 200% poverty

2010 Target: 57%

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.1 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**7(II).2.5. Decrease by 10% the number of children who visit the ER for reasons related to oral health disease, by June 2008.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-10: Increase the proportion of children and adults who use the oral health care system each year.

Baseline (1996): 44% of persons 2 years and older

2010 Target: 56%

21-12: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.

Baseline (1996): 20% of children less than 19 years old, below 200% poverty

2010 Target: 57%

**Original State Oral Health Plan Reference** – Priority 5, Strategies 5.1, 5.2, 5.3, 5.4, and 5.5 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**7(II).2.6. Decrease by 20% the number of children who visit their primary care provider for reasons related to oral health disease by June, 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-10: Increase the proportion of children and adults who use the oral health care system each year.

Baseline (1996): 44% of persons 2 years and older

2010 Target: 56%

21-12: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.

Baseline (1996): 20% of children less than 19 years old, below 200% poverty

2010 Target: 57%

**Original State Oral Health Plan Reference** – Priority 5, Strategies 5.1, 5.2, 5.3, 5.4, and 5.5 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**DECAY PROCESS**

**7(II).3.1 Decrease by 5% the number of children with dental caries experiences in their primary and permanent teeth, by June 2008.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-2b: Reduce the proportion of children with untreated dental decay in primary and permanent teeth.

Baseline (1988-94): 29% for children aged 6 to 8 years

2010 Target: 21%

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.1 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis. Data from the Oral Health Needs Assessment conducted by DHEC Division of Oral Health staff will also serve as a data source.

**7(II).3.2. Decrease by 5% the number of children ages 6-8 who have untreated caries, by June 2008.**

**South Carolina Baseline** 32.1% (Oral Health Needs Assessment, 2002)

**Healthy People Reference** 21-2b: Reduce the proportion of children with untreated dental decay in primary and permanent teeth.

Baseline (1988-94): 29% for children aged 6 to 8 years

2010 Target: 21%

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.1 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis. Data from the Oral Health Needs Assessment conducted by DHEC Division of Oral Health staff will also serve as a data source.

**7(II).3.3. Decrease by 20% the number of children who have teeth extracted for reasons related to untreated disease by June 2011.**

**South Carolina Baseline** To be determined with age specific groupings

**Healthy People Reference** 21-2b: Reduce the proportion of children with untreated dental decay in primary and permanent teeth.

Baseline (1988-94): 29% for children aged 6 to 8 years

2010 Target: 21%

**Original State Oral Health Plan Reference** – Priority 5, Strategy 5.3 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**SCHOOL ATTENDANCE**

**7 (II).4.1. Decrease by 50% the number of children who are absent from school due to oral health related illnesses by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-1b: Reduce the proportion of children with dental caries experience in their primary and permanent teeth.

Baseline (1988-94): 52% for children aged 6 to 8 years

2010 Target: 42%

21-2b: Reduce the proportion of children with untreated dental decay in primary and permanent teeth.

Baseline (1988-94): 29% for children aged 6 to 8 years

2010 Target: 21%

**Original State Oral Health Plan Reference** – Priority 5, Strategies 5.1, 5.2, 5.3, 5.4, and 5.5 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**7(II).4.2. Decrease by 50% the number of missed days from school due to oral health related illnesses by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 21-1b: Reduce the proportion of children with dental caries experience in their primary and permanent teeth.

Baseline (1988-94): 52% for children aged 6 to 8 years

2010 Target: 42%

21-2b: Reduce the proportion of children with untreated dental decay in primary and permanent teeth.

Baseline (1988-94): 29% for children aged 6 to 8 years

2010 Target: 21%

**Original State Oral Health Plan Reference** – Priority 5, Strategies 5.1, 5.2, 5.3, 5.4, and 5.5 (See Appendix G)

**Measurement Type** - Outcome

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will track this, among a cadre of other indicators through the Oral Health Cube, which will integrate secondary data sources such as Medicaid, Department of Education, MOA partner data. Progress will be analyzed on a quarterly basis.

**SATISFACTION/ESTEEM**

**7(II).5.1 Increase by 20% the number of children who report having improved self esteem after participating in a school-based oral health program by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 7-8: Increase the proportion of patients who report that they are satisfied with the patient education they receive from their health care organization. No baseline or 2010 target available

**Original State Oral Health Plan Reference** – Not Applicable

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will administer a retrospective survey to children served by MOA partners. Instruments are to be identified.



**7(II).5.2. Increase by 20% the number of parents who report satisfaction after their children's participation in a school-based oral health program, by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** 7-8: Increase the proportion of patients who report that they are satisfied with the patient education they receive from their health care organization. No baseline or 2010 Target available

**Original State Oral Health Plan Reference** – Not Applicable

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will administer a retrospective survey to parents of children served by MOA partners. Instruments are to be identified.

**7(II).5.3. Increase by 20% the number of school faculty who report satisfaction after their participation in a school-based oral health program by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** Not applicable

**Original State Oral Health Plan Reference** – Not Applicable

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will administer a retrospective survey to faculty of MOA partners. Instruments are to be identified.

**7(II).5.4. Increase by 20% the number of dentists who report satisfaction after their participation in a school-based oral health program by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** Not applicable

**Original State Oral Health Plan Reference** – Not Applicable

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will administer a retrospective survey to faculty of MOA partners. Instruments are to be identified.

**7(II).5.5. Increase by 50% the number of dentists in communities served by school-based oral health programs (that is, those who do not participate in the programs) who indicate support for the program by June 2011.**

**South Carolina Baseline** To be determined

**Healthy People Reference** Not applicable

**Original State Oral Health Plan Reference** – Not Applicable

**Measurement Type** - Impact

**Data Collection Method** – DHEC Division of Oral Health staff and evaluator will administer a retrospective survey to faculty of MOA partners. Instruments are to be identified.

## **SCHOOL INFRASTRUCTURE**

**7(II).6.1. The oral health education curriculum (targeting preschool, kindergarten, 2<sup>nd</sup> grade, and 7<sup>th</sup> grades) will be available in both print and electronic versions for the 2006/2007 school year by August 2006. Met**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Not Applicable

**Measurement Type** - Process

**Data Collection Method** – Evidence of materials, which will be monitored through the Coalition

**7(II).6.2. Through partnerships with the Division of Oral Health, Coalition, Advisory Council, and Department of Education, every school district will provide screening services using the DHEC model by June 2011.**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 3; Strategy 3.4 (See Appendix E)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition

**7(II).6.3. The Division of Oral Health will work with its partners to develop a comprehensive inventory of existing school-based oral health programs by June 2008 and updated by August 1<sup>st</sup> of each year thereafter. (The format will include, but not limited to, types of services offered, credentials of staff, percent effort of staff, role of DHEC in the program, funding sources, service dates, participation eligibility criteria, and service area.)**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix G)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition

**7(II).6.4. The school-based program inventory will be made available to local systems of care on an ongoing basis in order to facilitate oral health planning for school-aged children.**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix G)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition

**7(II).6.5. The state dental public health guidelines for school-based programs will be updated by the Division of Oral Health staff by June 30 of each year.**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix G)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition

**7(II).6.6. The Division of Oral Health will send updated public health guidelines for school-based programs to 100% of the schools participating in their programs or have an MOA for service by September 2008 and annually thereafter.**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix G)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition

**7(II).6.7. The Division of Oral Health will use information from the surveillance system and the school-based inventory to target services through MOAs by December 1 of each year.**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix G)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition

**7(II).6.8. Using evidence from the school-based program inventory and surveillance system, partners from the local system of care, the Dental Association, Dept. of Ed., the regional Oral Health Coordinators, and the Division of Oral Health will have an annual meeting when they will identify where school-based programs should receive expansion and/or better coordination by 2011.**

**South Carolina Baseline** Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix G)

**Measurement Type** - Process

**Data Collection Method** – Evidence of deliverables, which will be monitored through the Coalition